start new file
File ACT/019/017

FORM MR-1
(Revised May 1982)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES AND ENERGY
DIVISION OF OIL, GAS AND MINING
4241 State Office Building
Salt Lake City, Utah 84114
Telephone: (801) 533-5771

RECEIVED
FEB 28 1983
DIVISION OF OIL, GAS & MINING

NOTICE OF INTENTION TO COMMENCE MINING OPERATIONS and MINING AND RECLAMATION PLAN

Based on Provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, General Rules and Regulations and Rules of Practice and Procedures, By Order of the Board of Oil, Gas and Mining.

Mine Name: CATO PLACER SAND #(1) Mine Plan Date: February 19, 1983

File No.: ACT/019/017 Date Received: February 23, 1983

Operator: CATO Placer Sands Operations, Ltd. DOGM Lead Reviewer: S. Linner
Crater Exploration, Inc., General Partner

Mineral(s) to be Mined: Gold, Silver & other precious and noble metals removed as a concentrate produced by mass and size classication methods.

Please attach other sheets as needed and include cross-reference page numbers when used.

1. Name of Applicant or Company: CATO Placer Sands Operations, Ltd. by Crater Exploration, Inc General Partner.
   Corporation (x) Partnership (x) Individual ( )

2. Address: Permanent: 2030 East 4800 South, Salt Lake City, Utah 84117, Suite 202

   Temporary: _____

3. Company Representative: Name: Ralph Anderson
   Title: President
   Address: 7513 Monterey Circle, Sandy, Utah 84092 Phone: 801 943 6270

4. Location of Operation: County(ies) Grand County, Utah
   Township(s): T 23 S Range(s): R 24 E Section(s): (8),
   Township(s): _____ Range(s): _____ Section(s): _____
   Township(s): _____ Range(s): _____ Section(s): _____

5. Owner(s) of record of the surface area within the land to be affected:

   Name: Rendezvous Corporation Address: % DeMar Perkins, P.O. Box 248, Monticello, Utah
   Name: _____ Address: _____
   Name: _____ Address: _____
   Name: _____ Address: _____

6. Owner(s) of record of the minerals to be mined:

Name: Rendezvous Corporation Address: P.O. Box 248. Monticello. Utah 84535
Name: _____ Address: _____
Name: _____ Address: _____
Name: _____ Address: _____

7. Owner(s) of record of all other minerals, including oil and gas, within any part of the land to be affected:

Name: Federal Land Bank Address: _____
Name: _____ Address: _____
Name: _____ Address: _____

8. Have the above owners been notified in writing? (x) Yes, ( ) No. If no, why not? _____

9. Have you or any other person, partnership or corporation associated with you received an approval of a Notice of Intention to Commence Mining Operations by the State of Utah for operations other than described herein? ( ) Yes, (x) No. If yes, list all approval numbers now under surety:

_____ _____ _____
_____ _____ _____
_____ _____ _____

10. Source of Operator's legal right to enter and conduct operations on the land to be covered by this Notice: Rendezvous Corporation is the owner of the land CATO Placer Sands, Limited is the Partnership entity with Crater Exploration, Inc. as the General Partner is associated with Rendezvous Corporation and has the rights to the metaliferrous minerals through the Federal Land Bank.

11. Give the names and mailing addresses of every principal Executive, Office, Partner (or person performing a similar function) of Applicant:

Name Ralph Anderson Title President Address 7513 Monterey Circle, Sandy, Utah

A. ~~Crater Exploration, Inc. by~~ Ralph Anderson, President, 2030 East 4800 South, SLC. Utah
B. _____
C. _____
D. _____

12. Has the Applicant, any subsidiary or affiliate or any person, partnership, association, trust or corporation controlled by or under common control with the Applicant, or any person required to be identified by Item 11 ever had an approval of a Notice of Intention to Mine or Explore withdrawn or has surety relating thereto ever been forfeited? ( ) Yes, (x) No.

If yes, please explain: _____

_____

_____

_____

_____

_____

Please note: Section 40-8-13 of the Act provides that information relating to the location, size or nature of the deposit, and marked confidential by the Operator, shall be protected as confidential information by the Board and the Division and not be a matter of public record in the absence of a written release from the Operator, or until the mining operation has been terminated as provided in Subsection (2) of Section 40-8-21 of the Act. This material should be so marked and included on separate cross-referenced sheets.

13. All maps and plans prepared for submission shall be of adequate scale and detail to show topographic features and clearly indicate the following details:

A. Location and delineation of the extent of the land previously affected, as well as the proposed surface disturbance.
B. Existing active or inactive, underground or surface mined areas.
C. Boundaries of surface properties, including ownership.
D. Names and locations of:
   (1) Lakes, rivers, streams, creeks and springs.
   (2) Roads, highways and buildings.
   (3) Active or abandoned facilities.
   (4) Transmission lines within 500 feet of the exterior limits of land affected.
   (5) Gas and/or oil pipelines.
   (6) Site elevation.
E. Drainage patterns of land affected:
   (1) Overburden or topsoil removal and storage areas.
   (2) Areas susceptible to erosion.
   (3) Natural waterways.
   (4) Constructed drainages, diversions, berms and sediment ponds (design calculations shall be included).
   (5) Receiving waters (State Health classification).
   (6) Directional flow of all surface waters (indicated by arrows).
F. Known drill holes:
   (1) Location.
   (2) Status.

(3) Depths and thicknesses of:*
   a. Water bearing strata.
   b. Mineral deposits.
   c. Toxic or potentially toxic materials.
   d. Surficial or plant supporting material (topsoil and subsoil).

G. Locations of disposal and stockpile areas:
   (1) Topsoil and subsoil storage areas.
   (2) Overburden storage area.
   (3) Waste, tailings, rejected materials.
   (4) Raw ore stockpile(s).
   (5) Tailings-ponds and other sediment control structures.
   (6) Discharge points, water effluents (see #15[D]).

All maps should have a color code or other suitable legend used in preparation to clearly indicate surface features of the land affected. A general reference map completed on a 7.5 (1:24,000) USGS quadrangle sheet is recommended with additional large scale maps included for practical delineation of individual facilites, (e.g., 1:200, 1:500).

14. Acreage to be disturbed:

A. Minesite (operating, storage, disposal areas, etc.): two
B. Access/haul roads/conveyors: one existing
C. Associated on-site processing facilities: Classification & washing only

15. Describe mining method to be employed, including:

A. Mining sequence:
   (1) Map delineating the yearly sequential disturbance (if surface mine) and/or surficial disturbance.
   (2) Narrative (including on-site processing or mineral treatment):
   see Attached

   Attach supplemental sheets and/or diagrams as necessary with cross reference to page number here: _____.

*Stratigraphic or lithologic logs if correlated to footage depths may be presented when labeled (maps or logs should be labeled confidential, if so desired).

B. If sedimentary deposit seam(s):
(1) Thickness(es): twenty-five feet of placer
(2) Dip: 1½ degrees to the north
(3) Outcrop: twenty five feet of silt on the river

C. Will any underground workings or aquifers be encountered? ( ) Yes, (x) No. If yes, describe potential impacts and protection measures to be taken: _____

D. Describe any active discharge or proposed discharge of water from mine or site area. Include water quality data and lab test reports. If attached sheets or reports are included, cross reference to page number here: _____.

No chemicals will be added to wash and classify the placer deposits. Most water in the discharge ponds will be reused during mineral processing. The only chemicals added will be approved biodegradable chemicals to reduce turbidity. We anticipate two ponds per site but if the turbidity is not reduced, additional settling time will be provided.

16. Have all necessary water rights been appropriated? (x) Yes, ( ) No. How will water be obtained? Please explain: 4 second feet of water are included with the property.

17. Proposed or estimated duration of mining operation: twenty years
Will the permit term be for a lesser amount of time, subject to review? (e.g., for surety estimate reasons). ( ) Yes, (x) No. If yes, how long? _____

18. Describe the construction and maintenance of access roads including:
A. Procedures (drainage and erosion control methods).
B. Cross section(s).
C. Profile(s) of proposed road grade(s).

Highway 128 runs along and through the north side of the property as indicated on the map. Access to the property is through existing gates.

Attach supplemental diagrams and cross reference to page number here: _____.

19. Prior land use(s): native vegatation, grass, barley, corn, melons
Current land use(s): barley, corn
Possible projected or prospective future land use(s): grains, grass, irrigated land

20. Describe methods of tree and brush removal: Fell trees, compost branches use loader to compost roots

Provide estimate of, and method of obtaining existing vegetation cover (%): 60% tilled 20% tillable but not now utilized, 20% native & untillable Data is from area hotographs and walking the land.

What types of dominant vegetation are present? annual grains, native greasewood, cottonwood, and tamarac

Photographs and/or maps may be attached to these forms, cross reference to page number here: _____.

21. Soils (surficial plant supportive material) and overburden: Except where slope or rocky terrain make it impossible, all surficial materials suitable as a growth medium shall be removed, segregated and stockpiled according to its ability to support vegetation (as determined by soil analysis and/or practial revegetation experience) prior to any major excavation. (Suggested minimum requirements are the top six inches, or the "A" horizon, whichever is larger.)

A. What is the pH range of the soil before mining? 7-8
Name of person or agency and method of determining pH: USGS

Attach lab report if available. Cross reference page number here: _____.

B. Average depth of topsoil and subsoil to be stripped and stockpiled: 25 feet. Calculated volume of soil to be stockpiled: _____.

C. Describe the method for removing and stockpiling topsoil and subsoil, including measures to protect topsoil from wind and water erosion, compaction and pollutants: see section 15 above

D. Describe the method for removing and stockpiling overburden. Describe and discuss the acidity or alkalinity (pH) or other characteristics which would affect revegetation: see section 15 above

E. Rock subjected to processing such as waste rock, tailings, etc., and which is to be disposed of on- or off-site must be subjected to a toxicity analysis. The method of determination, results and suitable disposal methods must be explained in detail, including means for containment and long range stability*:

No toxic materials are allowed at the mining site.

No toxic residues are anticipated.

22. Describe the methods used to minimize public safety and welfare hazards during and after mining operations including:

A. Shaft, tunnel and drill hole closure.
B. Disposal of trash, scrap metal and wood and extraneous debris, waste oil and solvents, unusable buildings and foundations, sewage and other materials incident to mining.
C. Posting of appropriate warning signs and/or fences or berms to act as barriers (e.g., above highwalls) in locations where public access is available.

A. No shafts, tunnels, drillholes are anticipated in this placer mining operation.
B. All foreign structures are portable. No hazardous material is allowed on the mining site.
C. Fences will be maintained on hwy 128. Private access roads will be posted with appropriate warning signs. Guard security is enforced at the mine site. Link fence 8 feet high will be installed where needed.

*"Toxic" means any chemical or biological or adverse characteristic of the material involved which could reasonably be expected to negatively affect ecological or hydrological systems or could be hazardous to the public safety and welfare.

23. Grading and soil redistribution.

A. Attach pre- and postmining contour cross sections, typical of regrading designs. Cross reference to page number here: _____.

B. Describe the method(s) of overburden replacement and stabilization and highwall elimination, including: (a) slope factors; (b) lift heights; (c) compaction; (d) terracing, etc., (e) also include testing procedures: Coarse material wil be placed in the bottom of the excavated trench finer sand will be added on top of the coarse sand. Collected clay and silt of at least one foot will be placed on the top level. The ground will be contoured to minimize irrigation water usage. Soil fertility will be determined by commercial testing laboratories.

C. What method of spreading topsoil and subsoil or upper horizon material on the regraded area will be employed? Loaders and graders.

1. Indicate the approximate depth of soil cover after final surfacing 15 inches.
2. What tests will be performed to adequately evaluate the potential of the soil to successfully support intended revegetation? As the soil is deposited by hydraullic action of the River, no change in fertility is anticipated. The same Soil is returned to land.
3. What soil amendments or fertilizers will be needed as an aid to revegetation?

Type:	ammonium nitrate	Rate:	100 lbs/ac
Type:	supertriple phosphate	Rate:	100 lbs/ac or as per test
Type:		Rate:	

4. What additional surface preparations will be used? Describe (a) drainage, erosion and sediment control measures; (b) maximum slope characteristics; and (c) highwall reclamation.

The dredged tailings pond residues will be tempered with sand, fertilizer, and levelled for farming. Some terracing will be done to provide for more farming yeild and efficient irrigation.

5. Describe methods which may be particularly applicable to waste disposal areas determined to be potential problem areas.

Our environmental engineering consultants forsee no problems in waste disposal

D. Describe plans for either leaving or reclaiming the roads and pads associated with the operation.

No public road disturbance is planned.

24. Impoundments: All evaporation, tailings and sediment ponds; spoil piles, fills, pads and regraded areas shall be self-draining and nonimpounding when abandoned unless previously approved as an impounding facility by a lawful state or federal agency. In view of this, please describe the reclamation of all related areas in the operation and include pertinent items enumerated in C, 1-5 above.

No permanent impoundments are anticipated. Any impoundment contains only the wash water or the clay, silt fractions.

25. Revegetation plans:

A. What organization, agency or person will specifically be performing the revegetation? Rondezvous Corp.

B. Will the affected area be subject to livestock or wildlife grazing? (x) Yes, ( ) No. Will vegetation protection be needed to allow for a determination of the successful revegetation criteria outlined in the Mined Land Reclamation Act, Rule M-10(12)? ( ) Yes, (x) No. If yes, what measures will the operator take?

Perennial grasses and brush will be seeded to terace slopes. Irrigated crops will be seeded on the levelled portions of the site'

C. Will irrigation be used? (x) Yes, ( ) No. Type: flood _____. For how long? indefinate period of time.

D. Test plots initiated during the early stages of mine development provide good bases from which a successful revegetation program can be adapted for later implementation. Will test plots be employed? (X) Yes, ( ) No. If yes, describe on an additional sheet(s) and attach. Cross reference page number here and show location on facilities map: _____.

E. Please attach a revegetation plan and schedule including:
   1. Species to be used.
   2. Rate of seed application/acre.
   3. Season to be planted.
   4. Seedbed preparation techniques.
   5. Planting location, slope face direction, variability, method of application, covering, etc.
   6. Mulch and fertilizer application, if used.

F. Describe any other maintenance procedures which may be used, if needed, to guarantee successful revegetation:

D. When areas closest to the road are re-contoured, reseeding will be instituted to hold soil and water.

E. 7 lbs of alta fescue and 2½ lbs of alfalfa per acre will be planted in the fall.

26. Please provide a reclamation schedule including:

A. Estimated time for construction.
B. Estimated time for interim reclamation.
C. Estimated duration of the mining operation.
D. A time table for the accomplishment of each major step in the reclamation plans. Attach the schedule and cross reference to the page number here: _____.

27. A surety guarantee must be provided for the mining operation (see Rule M-5 Mined Land Reclamation Act). In calculating this amount, the Division will consider the following major steps based on the information provided in this report:

A. Clean up and removal of structures.
B. Backfilling, grading and contouring.
C. Topsoil and subsoil redistribution and stabilization.
D. Revegetation (i.e., preparation, seeding, mulching, irrigation).
E. Labor.
F. Safety and fencing.
G. Monitoring, and reseeding if necessary.

To assist the Division, the operator may attach a list of costs and factors which would satisfy these areas. Substantiation of these factors, i.e., unit costs and how they are derived, should accompany the list. Cross reference the page number here: _____.

28. A request for a variance from specific commitments to Rule M-10 (Reclamation Standards) of the Mined Land Reclamation Act may be submitted with adequate written justification. If after presentation of information adequately detailing the situation, a determination is made that finds a portion of the rule inapplicable, a variance may be granted by the Division.

I hereby commit the applicant to comply with Rule M-10, "Reclamation Standards" in its entirety, as adopted by the Board of Oil, Gas and Mining on March 22, 1978.

The applicant will achieve the reclamation standards for the following categories as outlined in Rule M-10 on all areas of land affected by this mine, unless a variance is granted in writing by the Division.

Rule	Category of Commitment	Variance Requested?
M-10(1)	Land Use	_____
M-10(2)	Public Safety and Welfare	_____
M-10(3)	Impoundments	_____
M-10(4)	Slopes	_____
M-10(5)	Highwalls	_____
M-10(6)	Toxic Materials	_____
M-10(7)	Roads and Pads	_____
M-10(8)	Drainages	_____
M-10(9)	Structures and Equipment	_____
M-10(10)	Shafts and Portals	_____
M-10(11)	Sediment Control	_____
M-10(12)	Revegetation	_____
M-10(13)	Dams	_____
M-10(14)	Soils	_____

I believe a variance is justified on a site-specific basis for the previous subsections of Rule M-10 as indicated. A narrative statement explaining these concerns is attached.

STATE OF Utah

COUNTY OF Salt Lake

I, RALPH ANDERSON, having been duly sworn depose and attest that all of the representations contained in the foregoing application are true to the best of my knowledge; that I am authorized to complete and file this application on behalf of the Applicant and this application has been executed as required by law.

Signed: Ralph Anderson

Taken, subscribed and sworn to before me the undersigned authority in my said county, this _____ day of FEB 22 1983, 19___.

Notary Public: _____

My Commission Expires: _____

My commission expires April 30, 1986

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides for maintenance of confidentiality concerning certain portions of this report. Please check to see that any information desired to be held confidential is so labeled and included on separate sheets or maps.

Only information relating to the location, size or nature of the deposit may be protected as confidential.

Confidential Information Enclosed: ( ) Yes (X) No

Insirt "A"

SCS-SOILS-5
REV. 6-78
FILE CODE SOILS-2

(1)

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SOIL INTERPRETATIONS RECORD

KEYING ONLY: RECORD NO. | CONTROL: WORD NO. | MLRA 001 | STATE 015

MLRA(S) 35 | KIND OF UNIT SERIES | UNIT NAME LGA LD

STATE UTAH | RECORD NO. | AUTHOR(S) HKS, MEO | DATE 1-78 | REVISED | UNIT MODIFIER

CLASSIFICATION AND BRIEF SOIL DESCRIPTION

CLASS 021 | DESCR 031

THE LD IS VERY DEEP MODERATELY WELL DRAINED SOIL FORMED IN ALLUVIUM ON LOW ALLUVIAL RIVER TERRACES UNDER BIG SAGEBRUSH AND COTTONWOOD TREES. MAST IS 53 TO 55 F. AAP IS 6 TO 9 INCHES. FFS IS 130 TO 150 DAYS. A TYPICAL PROFILE HAS A BROWN SILT LOAM SURFACE LAYER 7 INCHES THICK. THE UNDERLYING LAYERS ARE LIGHT BROWN TO BROWN STRATIFIED FINE SAND TO SILT LOAM TO A DEPTH OF 60 INCHES OR MORE. SLOPES ARE 0 TO 1 PERCENT.

ESTIMATED SOIL PROPERTIES

PROP 041	FOOTNOTE	DEPTH (IN)	USDA TEXTURE	UNIFIED	AASHO	FRACT. >3 IN. (PCT)	PERCENT OF MATERIAL LESS THAN 3 IN. PASSING SIEVE: 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
2		0-7	SIL	CL-ML	A-4	0	100	100	90-100	80-90	25-35	5-10
3		7-60	SR-FS-SIL	ML	A-4	0	100	100	85-95	60-70	20-30	NP-5
4												
5												
6												

PROP 051	DEPTH (IN)	CLAY (PCT OF <2MM)	MOIST BULK DENSITY (G/CM³)	PERMEABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	EROSION FACTORS: K	T	WIND EROD GROUP	ORGANIC MATTER (PCT)	CORROSIVITY: STEEL	CONCRETE
2	SAME DEPTH AS ABOVE	16-26	-	0.2-0.6	0.16-0.18	7.4-8.4	4-8	LOW	.49	5	4L	1-3	HIGH	HIGH
3		12-16	-	0.2-2.0	0.06-0.17	7.9-9.0	8-16	LOW	.43					
4														
5														
6														

PROP 061	FLOODING: FREQUENCY	DURATION	MONTHS	HIGH WATER TABLE: DEPTH (FT)	KIND	MONTHS	CEMENTED PAN: DEPTH (IN)	HARDNESS	BEDROCK: DEPTH (IN)	HARDNESS	SUBSIDENCE: INITIAL (IN)	TOTAL (IN)	HYD GRP	POTENTIAL FROST ACTION
	FREQUENT	LONG	APR-JUL	3.0-6.0	APPARENT	APR-JUL	-		>60		--		C	MODERATE

SANITARY FACILITIES

	FOOTNOTES	
SEPTIC 071	SEPTIC TANK ABSORPTION FIELDS	SEVERE: FLOODS, WETNESS
LAGOON 081	SEWAGE LAGOONS	SEVERE: SEEPAGE, FLOODS, WETNESS
TRENCH 091	SANITARY LANDFILL (TRENCH)	SEVERE: FLOODS, WETNESS, TOO SANDY
SANARE 101	SANITARY LANDFILL (AREA)	SEVERE: FLOODS, WETNESS
COVER 111	DAILY COVER FOR LANDFILL	POOR: TOO SANDY

BUILDING SITE DEVELOPMENT

	FOOTNOTES	
EXCAV 121	SHALLOW EXCAVATIONS	SEVERE: CUTBANK CAVE, FLOODS
DWEL 131	DWELLINGS WITHOUT BASEMENTS	SEVERE: FLOODS
DWEL 141	DWELLINGS WITH BASEMENTS	SEVERE: FLOODS
BLDGS 151	SMALL COMMERCIAL BUILDINGS	SEVERE: FLOODS
ROADS 161	LOCAL ROADS AND STREETS	SEVERE: FLOODS
LAWNS 171	LAWNS, LANDSCAPING, AND GOLF FAIRWAYS	

REGIONAL INTERPRETATIONS

REGION 181	FOOTNOTES	

CONSTRUCTION MATERIAL

KEYING ONLY	FOOTNOTES	
FILL 191	ROADFILL	MODERATE: LOW STRENGTH
SAND 201	SAND	UNSUITED
GRAVEL 211	GRAVEL	UNSUITED
SOIL 221	TOPSOIL	SEVERE: TOO SANDY, EXCESS SALT

WATER MANAGEMENT

	FOOTNOTES	
PONDRS 231	POND RESERVOIR AREA	SEEPAGE
DIKES 241	EMBANKMENTS DIKES AND LEVEES	PIPING, EXCESS SALT
PONDAQ 251	EXCAVATED PONDS AQUIFER FED	DEEP TO WATER, SLOW REFILL, SALTY WATER
DRAIN 261	DRAINAGE	FLOODS, EXCESS SALT
IRRIG 271	IRRIGATION	FLOODS, EXCESS SALT
TERRAC 281	TERRACES AND DIVERSIONS	NOT NEEDED
WATERW	GRASSED WATERWAYS	EXCESS SALT, ERODES EASILY

KEYING ONLY — RECORD NO. | CONTROL: WORD | NO.

UNIT NAME LD

UNIT MODIFIER

RECREATIONAL DEVELOPMENT

KEYING ONLY			FOOTNOTE	KEYING ONLY			FOOTNOTE
CAMPS	301	CAMP AREAS	SEVERE: FLOODS	PLAYGD	321	PLAYGROUNDS	SEVERE: FLOODS
PICNIC	311	PICNIC AREAS	MODERATE: FLOODS	PATHS	331	PATHS AND TRAILS	MODERATE: FLOODS, DUSTY

CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)

CROPHD 451

CROPS 341	FOOTNOTE: CLASS-DETERMINING PHASE	CAPABILITY NIRR	CAPABILITY IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.
	ALL	7W																	

WOODLAND SUITABILITY

WOODS 361

FOOTNOTE: CLASS-DETERMINING PHASE	ORD SYM	MANAGEMENT PROBLEMS: EROSION HAZARD	EQUIP. LIMIT	SEEDLING MORT'Y.	WINDTH. HAZARD	PLANT COMPET.	POTENTIAL PRODUCTIVITY: COMMON TREES	SITE INDEX	TREES TO PLANT

WILDLIFE

WINEBK 381

CLASS DETERMINING PHASE	SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
	NONE							

WILDLIFE HABITAT SUITABILITY

WILDLF 391

FOOTNOTE: CLASS DETERMINING PHASE	POTENTIAL FOR HABITAT ELEMENTS: GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	POTENTIAL AS HABITAT FOR: OPENLAND WILDLIFE	WOODLAND WILDLIFE	WETLAND WILDLIFE	RANGELAND WILDLIFE
ALL	V. POOR	V. POOR	V. POOR		V. POOR	V. POOR	FAIR	POOR	V. POOR	V. POOR	POOR	V. POOR

POTENTIAL NATIVE PLANT COMMUNITY (RANGELAND OR FOREST UNDERSTORY VEGETATION)

PHASE 401 — PLANT 411

FOOTNOTE: COMMON PLANT NAME	PLANT SYMBOL (NLSPM)	PERCENTAGE COMPOSITION (DRY WEIGHT) BY CLASS DETERMINING PHASE: ALL				
ALKALI SACATON	SPGR	15				
INDIAN RICEGRASS	ORHY	5				
INLAND SALTGRASS	DIST	5				
SAND DROPSEED	SPCR	5				
OTHER PERENNIAL GRASSES	PPGG	10				
SEEPWEED	SUAED	5				
OTHER PERENNIAL FORBS	PPFF	10				
BLACK GREASEWOOD	SAVE4	5				
FREMONT COTTONWOOD	POFR2	10				
RUBBER RABBITBRUSH	CHRYS	5				
SALT CEDAR	TAPE	5				
SQUAWBUSH	RHTR	10				
WILLOWS	SALIX	5				
OTHER SHRUBS	SSSS	5				

PRODUC 431

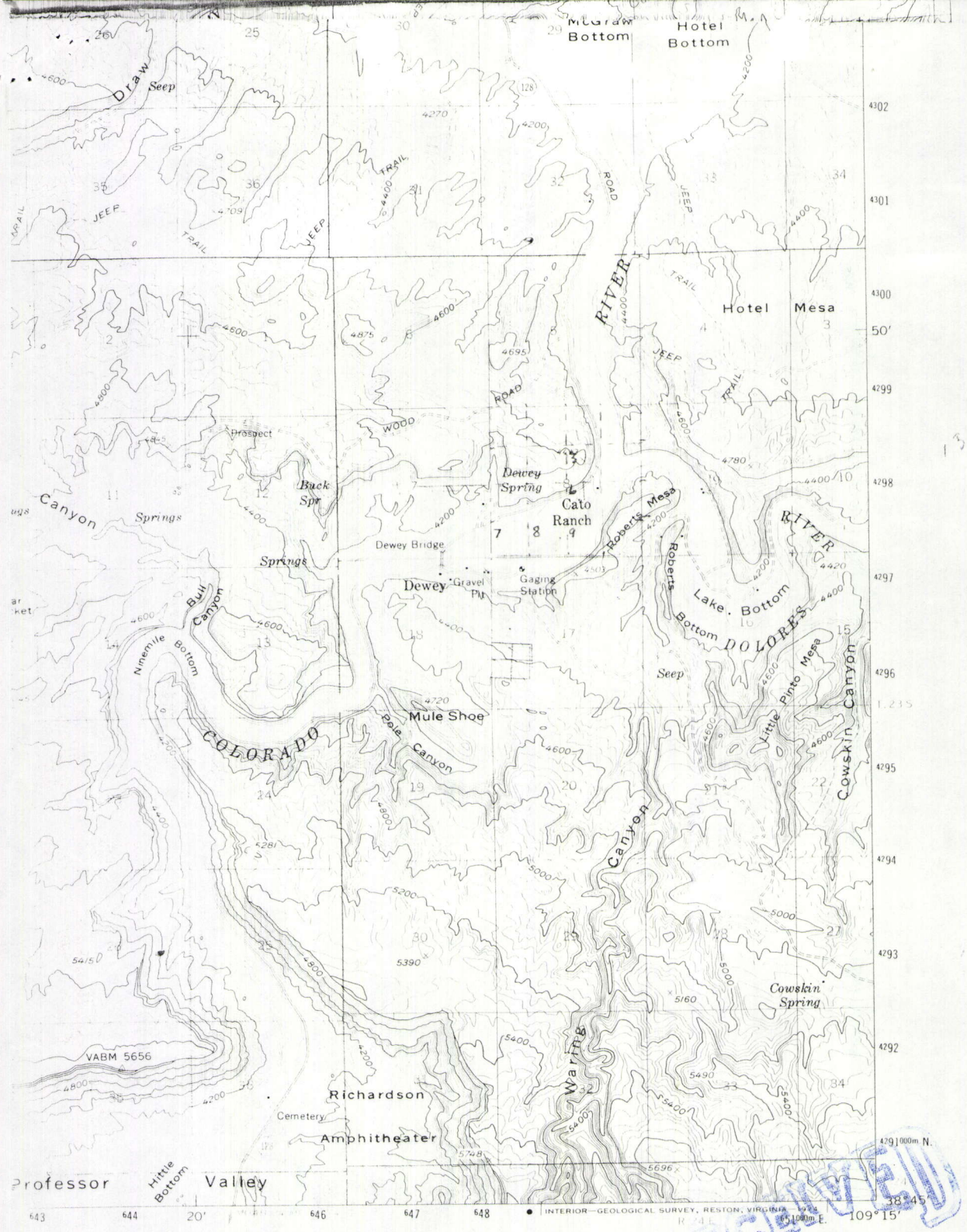
POTENTIAL PRODUCTION (LBS./AC. DRY WT.)	SALTY STREAMBOTTOMS 035				
FAVORABLE YEARS	2,000				
NORMAL YEARS	1,500				
UNFAVORABLE YEARS	1,250				

SYM.

NOTES 441

FOOTNOTES

1 WITH SUITABLE WATER SUPPLY



INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA 1958

3 4 MILES

18000 21000 FEET

4 5 KILOMETERS

ROAD CLASSIFICATION

Medium duty — Light duty

Unimproved dirt

U. S. Route — State Route

UTAH

QUADRANGLE LOCATION

CISCO, UTAH

N3845—W10915/15

1958

MINOR REVISIONS 1973

AMS 4161 IV - SERIES V797

NDARDS
RESTON, VIRGINIA 22092
T ON REQUEST

CATO PLACER SAND # (1)

General Explanations:

Reports on soils, revegetation recommendations, farming recommendations, and maps are in the public domain. These reports have been submitted by others on adjacent properties to BLM, and state agencies in previous applications. Our submission includes only the documents pertinent to this operation. We make little attempt to determine if the plan is the best on in terms of optimum performance. We welcome proposals from state agencies which will better accomplish revegatation and minimal disturbance of the environment.

FORM MR-1

15. Mining Method

We have leases on 50 aces of placer. In any one year we will disturb a maximum of ten acres. +20 year mine life??

A backhoe will remove placer sands and feed a short conveyor. The oversize organic material will be fed into a compost pile. The sand will be hydraulically conved to portable processing plant. The sand will classified, washed, and placed into an interimwaste pile. The silt and clay will be collected in settling ponds. Any discharge will be from steeled, clarified ponds. Concentrates are removed from the mine site to a private security site for chemical processing. How far away?

The backhoe will create atrench. After bedrock has been reached the cleaned rock will be filled with coarse sand from the interim waste pile. Loaders will distribute, level, and compact the waste sand.

Silt and clay material will be dredged periodically from the settling ponds. After drying for a sufficient period of time the material will distributed as topsoil, fertillized and prepared for planting.

The topsoil is to be levelled and terraced to provide for modern irrigation practice.

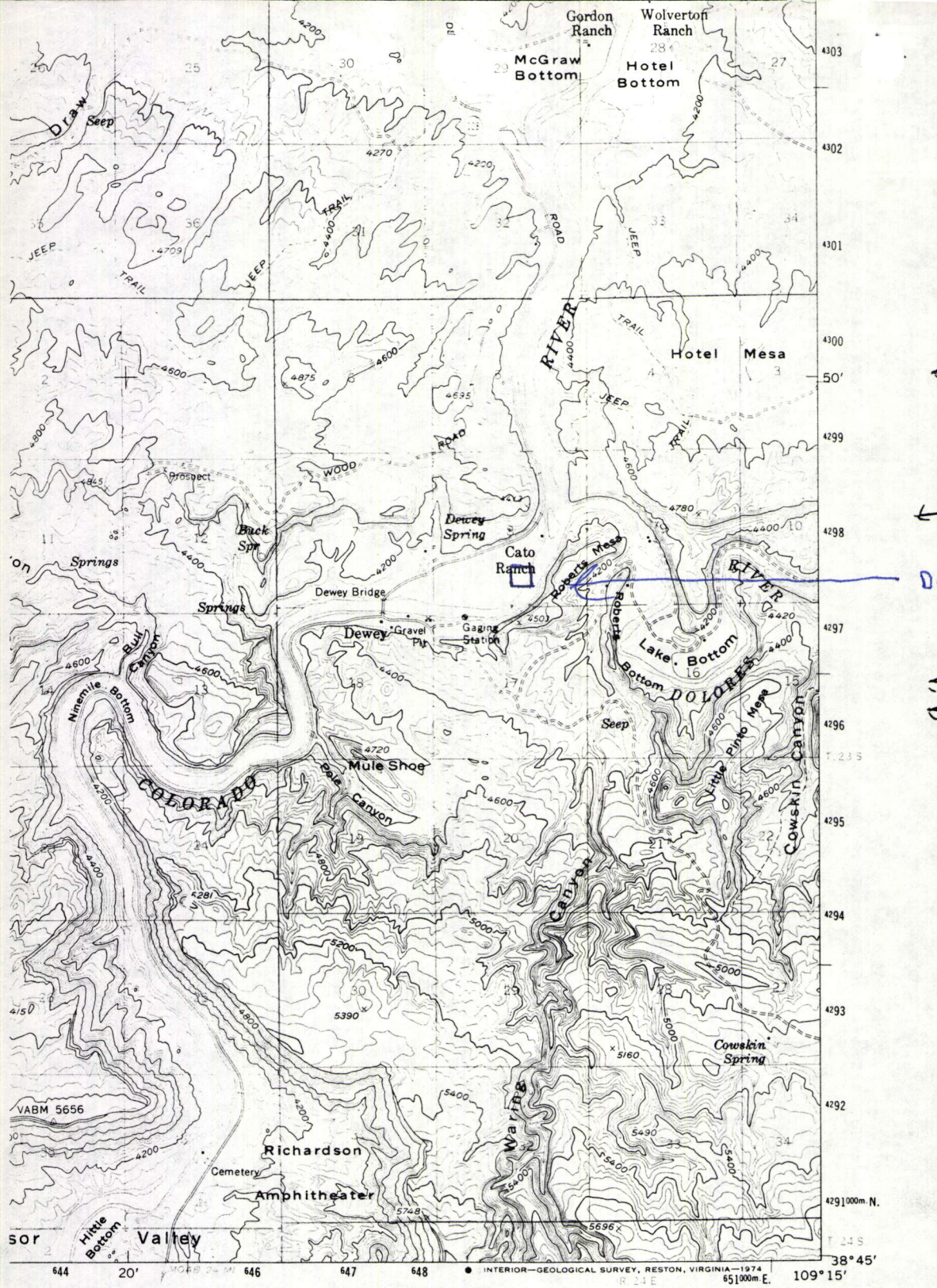
26. Reclamation Schedule

A. The trench is to be dug till bedrock is reached. The bedrock is to be cleaned and after sufficient width at depth, the sand will be replaced. Cleaned bedrock should be exposed for only 2 to 3 weeks. Sand replacement is carried out continuously.

B Topsoil will be replaced 3 to 4 weeks after sand grade has been reached. If earthmoving equipment will be in area the topsoil will be stockpiled for spreading after mining activity ceases.

C. Mining duration on claim 20 years

D. Final Reclamation will be in the fall of each year leaving less than an acre of finished land unplanted.



DOE/019/023

3 4 MILES
18000 21000 FEET
5 KILOMETERS

ROAD CLASSIFICATION

Medium-duty — Light-duty

Unimproved dirt

U. S. Route State Route

UTAH

QUADRANGLE LOCATION

(POLAR MESA) 4161 II

CISCO, UTAH

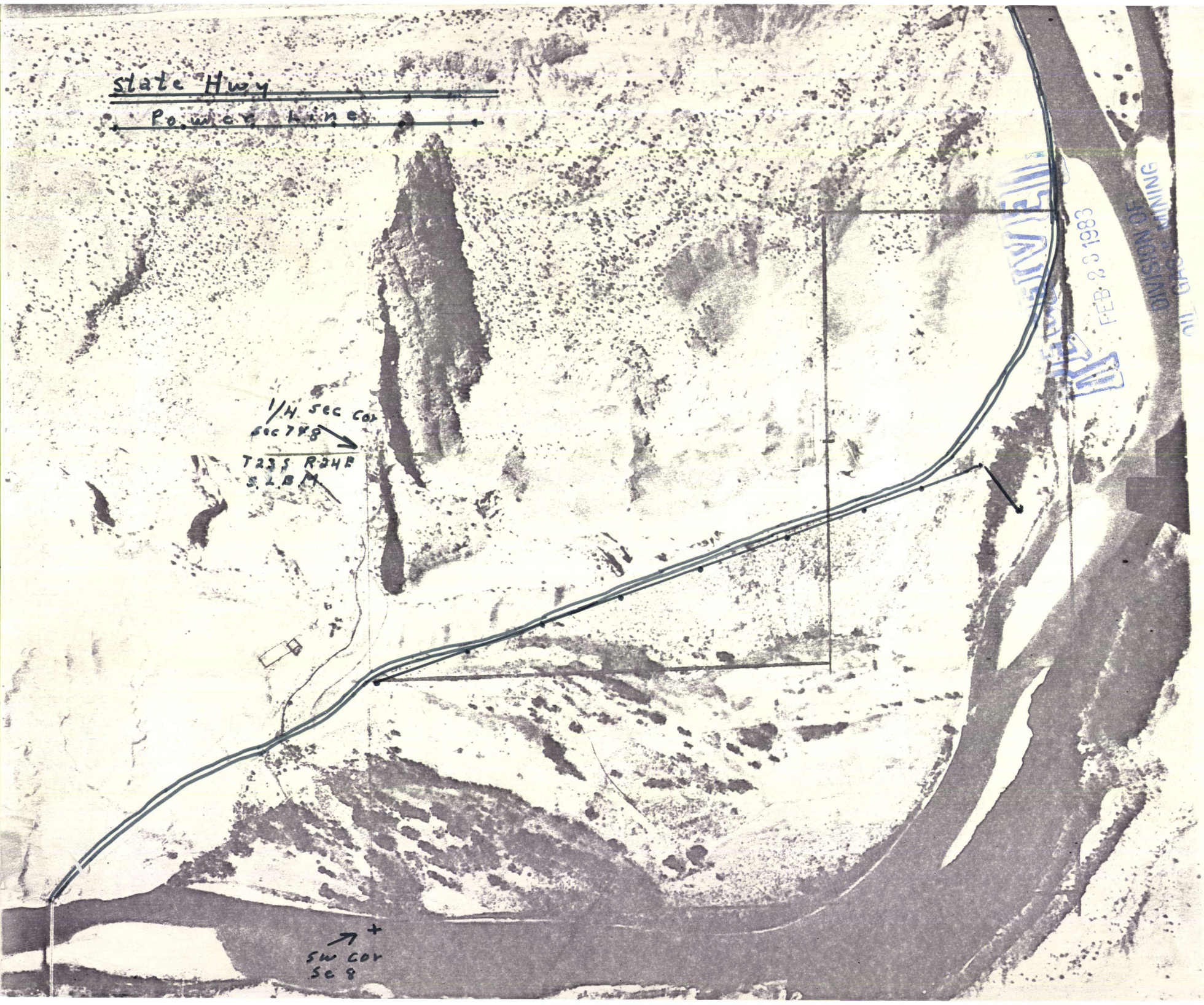
N3845—W10915/15

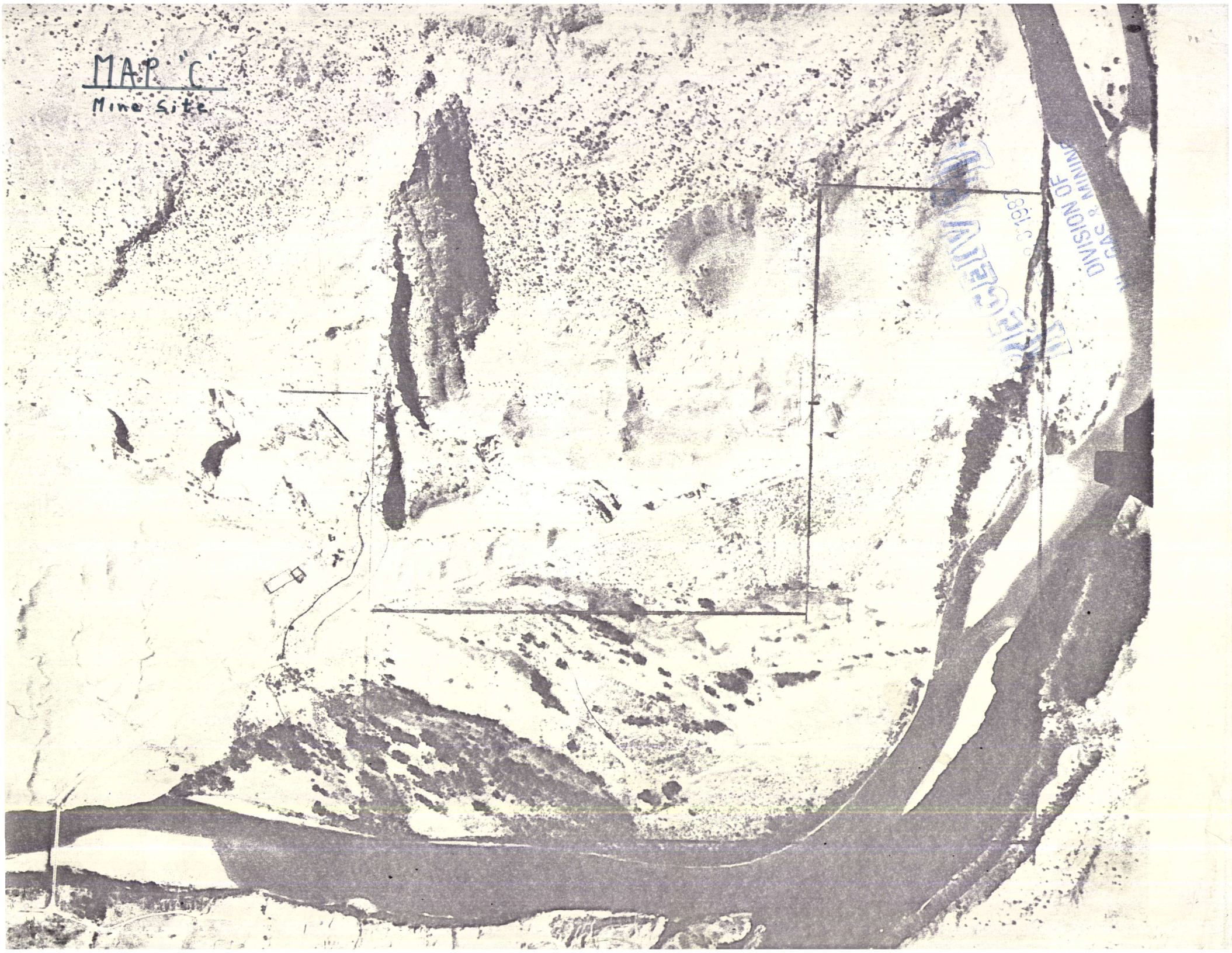
1958

MINOR REVISIONS 1973

AMS 4161 IV - SERIES V797

RGINIA 22092
EST


State Hwy
Power Line
1/4 Sec Cor
Sec 7 T 23 S R 24 E
S.L.B.M.
SW Cor
Sec 8


MAP "C"
Mine Site
DIVISION OF

MAP "D"

Mining Areas

MAP "B"
soils map
T. 23 S.
SIA
TSDI
3
GcC
4
5
LdA
RUE
TSDI
248
LdA
9
RQG
10
RUE
RUE
TbC
ZeA
8 LdA
TbC
1/4 cor sec 8 west
CATO sec 8 S1/2
LdA
TbC
RS
RS
SIA
RQG
LdA
16
LdA
RS
15
TSDI
ZeA
RS
GcC
FLA
17 FkC
RS
TbC
18 RTI
TbC
1-92-D